

IN THE CLAIMS:

Please **cancel claim 15, amend claims 1-21 and add claims 22-24** as follows:

1. (*Currently amended*) An antenna for emitting substantially hectometric waves, ~~characterized in that it comprises~~ said antenna comprising an existing vertical structure ~~[[1]]~~ having a height of at least approximately ~~[[ten]]~~ 10 meters and including at least one electrically conductive member ~~[[3]]~~ connected to ~~the (T)~~ ground, and an essentially electrically conductive electromagnetic excitation wire ~~means (4a, 7a) that is essentially electrically conductive,~~ arrangement disposed at least in part in the vicinity of and outside the structure and connected to an emitter ~~(E) so that the~~ for causing said structure ~~radiates to radiate~~ substantially hectometric waves.

2. (*Currently amended*) An antenna according to claim 1, wherein the electromagnetic excitation ~~means~~ wire arrangement comprises a conductive excitation wire ~~[[4a]]~~ substantially extending at least partly outside and along the structure ~~[[1]]~~.

3. (*Currently amended*) An antenna according to claim 2, wherein the conductive wire ~~[[4a]]~~ has a first end ~~[[41a]]~~ connected to the emitter ~~[[E]]~~ via an impedance matching ~~means (5)~~ arrangement situated substantially in front of the base of

the structure $[(1)]$ and a second end $[(42a)]$ fixed to the structure $[(1)]$.

4. (Currently amended) An antenna according to claim 3, comprising a grounding network ~~(11) consisting of~~ including conductive wires or strips disposed in a star arrangement and connected to the matching ~~means (5)~~ arrangement.

5. (Currently amended) An antenna according to claim 2, wherein ~~the~~ a first end $[(41d)]$ of the excitation wire $[(4d)]$ is connected to the emitter $[(E)]$ via an impedance matching arrangement including a variable length conductor ~~(43d)~~ serving as impedance matching means.

6. (Currently amended) An antenna according to ~~any of~~ claims claim 2 to 5, wherein one end $[(42a)]$ of the excitation wire $[(4a)]$ is fixed to the structure $[(1)]$ via an electrical insulator $[(6)]$.

7. (Currently amended) An antenna according to ~~any of~~ claims claim 2 to 5, wherein one end ~~(42b, 42c)~~ of the excitation wire is connected to the conductive member $[(3)]$ of the structure $[(1)]$.

8. (Currently amended) An antenna according to ~~any of~~ claims claim 2 to 5, wherein one end $[(42d)]$ of the excitation wire $[(4d)]$ is connected to the structure $[(1)]$ via an

impedance matching arrangement including a conductor [(44d)]
movable along the conductive wire ~~and serving as impedance~~
~~matching means.~~

9. (Currently amended) An antenna according to ~~any of~~
~~claims claim 2 to 5~~, wherein one end [(42f)] of the conductive
wire [(4f)] is connected to the conductive member [(3)] of
the structure [(1)] through a load [(44f)].

10. (Currently amended) An antenna according to ~~any of~~
~~claims claim 2 to 5~~, wherein one end [(42j)] of the excitation
wire [(4j)] is connected to a terminating capacitive load
[(44j)] consisting of turns of conductive wire around the
structure [(1)].

11. (Currently amended) An antenna according to ~~any of~~
~~claims claim 2 to 5~~, wherein one end [(42k)] of the excitation
wire [(4k)] is fixed to the structure [(1)] through an
insulator [(6k)] and supports one or more deployed conductive
wires [(45k)].

12. (Currently amended) An antenna according to ~~any of~~
~~claims claim 2 to 5~~, ~~wherein the excitation wire comprises~~
further including a coaxial terminating capacitor coupled with
the antenna, the coaxial terminating capacitor including a first
portion [(4m1)] of the excitation wire extending along the
structure [(1)] and a second portion [(4m2)] of the

excitation wire extending in a conductive sheath ~~[[(44m)]]~~ situated inside the structure, ~~(1) to constitute a coaxial terminating capacitor whose~~ the second portion of the excitation wire having a length ~~[[is]]~~ substantially equal to that of the first portion ~~[[(44m1)]]~~ of the excitation wire.

13. (Currently amended) An antenna according to ~~any of~~ ~~claims claim 2 to 12~~, wherein the excitation wire comprises two wires ~~(4i, 4j)~~ in line with each other and separated by a band-pass filter ~~[[(44i)]]~~.

14. (Currently amended) An antenna according to claim 2, wherein the excitation wire comprises two aligned conductive excitation wires ~~[[(4c)]]~~ running along the structure ~~[[(1)]]~~ and having near ends connected by an insulator ~~[[(61)]]~~ and connected to be fed by the emitter ~~[[(E)]]~~ through a power balancer ~~[[(52)]]~~.

15. (Cancelled)

16. (Currently amended) An antenna ~~according to claim 1,~~ wherein ~~the excitation means comprises~~ for emitting substantially hectometric waves, the antenna comprising an existing vertical structure having a height of at least approximately 10 meters and including at least one electrically conductive member connected to the ground, and a conductive electromagnetic excitation loop (7a) ~~that is~~ situated above the

ground ~~[(T)]~~ and outside and near the structure ~~[(1)]~~ and connected to an emitter for causing the structure to radiate substantially hectometric waves.

17. (Currently amended) An antenna according to claim 16, wherein the conductive electromagnetic excitation loop ~~[(7a)]~~ extends in a substantially vertical plane and has one side substantially parallel to the structure ~~[(1)]~~.

18. (Currently amended) An antenna according to claim 16 ~~or~~ ~~claim 17~~, wherein the conductive electromagnetic excitation loop ~~(7a, 7e)~~ is situated substantially at the level of the base or the middle of the structure ~~[(1)]~~.

19. (Currently amended) An antenna according to ~~any of~~ ~~claims~~ claim 16 ~~to 18~~, wherein the excitation loop (7a) has a perimeter of a few meters.

20. (Currently amended) An antenna according to claim 1, wherein the electromagnetic excitation ~~means~~ wire arrangement comprises a plurality of conductive excitation wires for different frequency bands ~~according to any of claims 2 to 15~~ and/or ~~a plurality of conductive loops for different frequency bands according to any of claims 16 to 19~~ and substantially extends at least partly outside and along said structure.

21. (New) An antenna for emitting substantially hectometric waves, said antenna comprising an existing vertical structure

having a height of at least approximately 10 meters and including at least one electrically conductive member connected to ground, and a conductive electromagnetic exciting tube substantially extending at least partly outside and along said structure and connected to an emitter for causing the structure to radiate substantially hectometric waves.

22. (New) An antenna according to claim 1, comprising a non-excited wire arrangement disposed substantially along the structure and having one end isolated from the structure and another end loaded by a reactor connected to ground.

23. (New) An antenna for emitting substantially hectometric waves, the antenna comprising an existing vertical structure having a height of at least approximately 10 meters and including at least one electrically conductive member connected to ground, and an electromagnetic excitation cage including a plurality of parallel conductive wires substantially extending at least partly outside and along the structure and connected to an emitter for causing the structure to radiate substantially hectometric waves.

24. (New) An antenna according to claim 16, further including a plurality of conductive loops for different frequency bands situated above the ground and outside and near the structure.